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AUTHOR McCroskey, James C.; And Others  
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ABSTRACT

This study reports a portion of a series of investigations designed to determine to what extent credibility scales can be generalized. The investigation data was collected in six phases, representing six subject populations. All of the subjects were either college students or non-student adults. Subjects were asked to respond to one of four political figures, each representing a wide range of political viewpoints. Semantic differential-type scales, representing dimensions of source credibility reported by various researchers, and Likert-type statements on an eleven-step continuum bound by bipolar adjectives were used to measure potential communication behavior and response to communication behavior. The results suggested that researchers should not expect exactly the same dimensionality of source credibility for all subject populations. (Author/LG)

The Generalizability of Source Credibility  
Scales for Public Figures

James C. McCroskey  
West Virginia University

Thomas Jensen  
University of Utah

and

Cynthia Todd  
Illinois State University

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ABSTRACT

This paper reports a portion of a series of investigations designed to determine generalizability of source credibility scales across various types of sources and various types of subjects. Semantic differential-scales that have been found to load on factors of source credibility in previous investigations were combined to provide an item pool for this study. Six groups of subjects were asked to respond to public figures on the scales. Subjects included a random sample of adults in Bloomington-Normal, Illinois, a random sample of adults in Peoria, Illinois, college students in basic communication and speech classes at Illinois State University, the University of Southern California, Hampton Institute, and Nihon University in Tokyo, Japan. Results of the investigation indicate that the factor structure for source credibility for public figures varies from one subject sample to another. The implications of this variability for research on source credibility are discussed and suggestions are provided for researchers concerned with this variable.

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## GENERALIZABILITY OF SOURCE CREDIBILITY SCALES FOR PUBLIC FIGURES

Whether source credibility is an important variable in persuasion is no longer a real question. An extensive body of literature has developed over the past two decades indicating that source credibility may be the single most important variable in determining persuasive effects of communication. Researchers in the area of persuasion have become increasingly aware that source credibility must be controlled and/or measured in persuasion studies in order to account for either main effects of credibility, interaction effects of credibility, or contamination due to the credibility variable. Similarly, source credibility as a terminal effect of persuasion has received increasing attention from researchers in the field.

This increased recognition of the importance of source credibility in research on persuasive communication has created a demand for measuring instruments which can reliably tap the credibility variable. Two sets of scales have been the predominate choice of researchers in the field of speech communication. These are the scales developed by McCroskey (1966) and by Berlo, Lemert, and Mertz, (1969). Use of either of these scales presumes the multi-dimensionality of the source credibility construct. Both sets were developed utilizing the methodology of factor analysis. Both include dimensions concerning the competence and the character of the communication source. In addition, the Berlo instrument includes scales to measure the dynamism of the source. The Berlo instrument employs the semantic differential approach to measurement. While McCroskey reports both Likert-type and semantic differential-type scales, the semantic differential-type scales are the ones which have been predominantly chosen for use.

These two sets of scales are virtually identical both in the method of their development and in the scales themselves with the exception of the dynamism dimension being present in the Berlo instrument. The only important difference in the development of the scales is that one (McCroskey) was based on research with undergraduate students while the other (Berlo) was based on the sample of adults in the Lansing, Michigan area. The development of both sets of scales was predicated upon subjects' responses to public figures. Since the scales are so similar and were based on two different subject populations, many people have assumed that these scales are highly generalizable and, as a result, have used them to measure many types of communication sources.

Tucker (1971) has noted the error in assuming that these scales are universal. He notes that varying subject-type or source-type may cause the dimensionality of source credibility scales to change. McCroskey, Scott, and Young (1971) provided a direct test of the generalizability of these scales. Their results indicated that the use of either of these sets of scales to measure the credibility of sources who were either spouses or peers, when the research subjects were adults, would be undefendable. They also found that scales developed by Norman (1963), Harkham (1968), and Whitehead (1968) did not generalize to sources of this type. It is clear from the Tucker critique and the McCroskey, Scott, and Young research that researchers concerned with source credibility should be advised to factor analyze their source credibility scales prior to their use as either

dependent or independent variables. Unfortunately, that advice is much easier to give, under some circumstances, than it is to follow. Some writers concerned with factor analysis suggest that there is a need for at least 200 subjects for a factor analysis to be justified (e.g., Guilford, 1954). It is very common to find studies concerned with source credibility that do not have this size of sample. In addition, many studies include only a single source. Factor analysis of data provided by subjects all responding to the same source is of very questionable value. Unless there is considerable variability in the subject population, the resulting factor structure may be meaningless, as in the case of the Whitehead (1962) study.

An alternative to the "factor analyze everytime" advice is a series of investigations designed to determine just how far credibility scales can be generalized. The current paper is a report of a portion of such a series of investigations. This series of studies assumes that three elements may contribute to a lack of generalizability of factor structures and source credibility measuring instruments. The first, and most obvious element which may contribute to the lack of generalizability, is in the scales employed. The major factor analytic studies concerning credibility have all used different item pools. Consequently, the obtained differences in factor structures could be simply a function of the difference in items employed. The second element that may contribute to the lack of generalizability is differences in research subjects. With the exception of the research by Berlo (1969), the research subjects in all of the factor analytic investigations have been college students, more specifically, white college students. Even the novice behaviorist in communication soon learns how questionable it is to generalize from college students to an adult population. But beyond that, within either a student population or an adult population there are many sub-cultural groupings. To employ predominantly white college students as subjects and then to generalize even to college students as a whole is dangerous. There has been no research examining non-white groups within our society and their responses in terms of source credibility dimensions.

The third and possibly the most important element which may contribute to the lack of generalizability of source credibility instruments is differences in source-type. Do we respond on the same psychological dimensions to all types of sources? The research reported by McCroskey, Scott, and Young (1971) indicates that we may not. The subjects in their study responded to peers on four dimensions while responding to spouses on six dimensions. It would appear, therefore, that if we are to obtain source credibility measuring instruments which have any generalizability at all, these instruments must be based upon specific source-types. The current series of investigations is involved with the following categories of source-type: public figures, peers, spouses, mass media, organization sources, teachers, superiors in an organization, subordinates in an organization, and members of a small group communication task-group. Other categories of source-type may be added later as the need becomes apparent. The present report is concerned with the source-type most often considered in previous investigations--public figures.

Of equal and possibly greater importance than the question of factor structure is the question of factor importance. Just because a given dimension appears in a number of factor analytic studies, this does not mean that that dimension has any social utility. The primary reason for

the development of measures of source credibility is so that researchers may use measures of credibility to predict variance in communication or other behavior. Consequently, the current series of investigations took additional measures relating to potential communication behavior and responses to communication behavior from each subject for each source. The data were then analyzed to determine the ability of obtained credibility dimensions to predict these variables.

## METHOD

The current investigation employed as its initial item pool 53 semantic differential-type scales representing the dimensions of source credibility reported by Norman (1963), McCroskey (1966), Markham (1968), Whitehead (1968), and Berlo, Lemert, and Hertz (1969). All of the scales with high loadings on given factors in these studies were included, but because of several duplications of items, the item pool was reduced to 53. After the first (pilot) phase of this study, 11 items in the original data pool were omitted. The first phase of the study involved four source-types. The 11 items omitted failed to have satisfactory factor loadings on any factor for any source-type. Four additional items were added to the item pool after this investigation. These items were added for the purpose of strengthening obtained factors in the first investigation that appeared to be clear dimensions of response but which had only 2 or 3 items with satisfactory loadings. For phases 2 thru 6, therefore, the item pool was composed of 46 semantic differential-type scales. (See Appendix A.)

Measures of potential communication behavior and response to communication behavior were Likert-type statements with response options falling on an eleven-step continuum bound by bipolar adjectives. In the first (pilot) phase of the investigation only four of these items were included. This number was expanded to nine in the subsequent phases. (See Appendix A.)

## SOURCES

The public figures employed with the American subjects in this investigation were President Richard Nixon, Vice President Spiro Agnew, Senator Ted Kennedy, Senator George McGovern, Mayor John Lindsey, Governor George Wallace, Governor Ronald Reagan, and Senator Edmund Muskie. These sources were selected because it was believed that the overwhelming majority of the subjects in the study would be familiar with the sources and because these individuals represent a wide range of political viewpoints which should insure considerable variability in subject response. Each subject was asked to respond to only one public figure. Which public figure the individual was asked to evaluate was determined randomly.

In the phase of this investigation which employed Japanese college students, the American sources were not included. Rather, the subjects were asked to select a public figure well known in Japan (of their choice) and then respond to that individual. As in the other phases of the study, each subject responded to only one public figure.

## SUBJECT TYPE

The data for this investigation were collected in six phases, representing six subject populations. All of the subjects were either college students or a random sample of non-student adults. Phase one of the investigation (the pilot study) involved 212 randomly selected adults living in either Bloomington or Normal, Illinois. These individuals were contacted directly by 12 graduate student interviewers. This phase of the study was completed during the spring of 1971. Phase 2 of this investigation involved 558 randomly selected adults in Peoria, Illinois. These individuals were contacted directly by 18 graduate student interviewers. Phase 3 and 4 of the investigation involved predominately white college students. Phase 3 was composed of 434 undergraduate students at Illinois State University. Phase 4 involved 130 undergraduate students at the University of Southern California. Phase 5 of the investigation involved 107 black undergraduate students from Hampton Institute. Phase 6 of the investigation involved 54 undergraduate students from Nippon University in Tokyo, Japan. All of the student samples were composed of undergraduates enrolled in basic speech or communication classes. The instruments were administered during regular class time.

## DATA ANALYSIS

The data from the six phases of this investigation were analyzed separately. The data were subjected to principal components factor analysis and varimax rotation. Unity was inserted in the diagonals. An eigenvalue of 1.0 was established as the criterion for termination of factor extraction. For an item to be considered loaded on a resulting factor, a loading of .60 or higher was required with no loading of .40 or higher on any other factor. For a factor to be considered meaningful, the a priori requirement was set that at least two scales must be loaded on that factor. All data analyses were performed with the cooperation of the computation center at Illinois State University.

Where sample size permitted (in excess of 400) the data were divided into 2 sub-sets and analyzed to determine whether internal replication was possible. In phase 2, the Peoria adults, subjects were randomly assigned to the two sub-sets. In phase 3, the Illinois State University students, the data were divided by the sex of the respondent.

The second phase of the data analysis employed step-wise multiple regression analyses. Scores were computed for each obtained dimension of credibility for each subject sample based on all of the items with satisfactory factor loadings on the given dimensions. So that the scores on the various dimensions could be placed on the same continuum for comparison, the obtained score for each dimension was divided by the number of items loading on that dimension. These scores were then employed as predictor variables in multiple regression analyses. The criterion variables for the analyses were the measures of potential communication behavior and responses to communication behavior. Each criterion measure was analyzed separately.

The criterion established for termination of the step-wise multiple regression and analyses was when an entering variable in the analysis had

a nonsignificant ( $p < .05$ ) partial correlation with the criterion variable or when extraction of an additional step would account for less than a one per cent increase in variance accounted for from the analysis.

The first multiple regression analyses conducted were based on the factor structure for the data sample under consideration (e.g. the Peoria factor structure for the Peoria data). Subsequently, analyses were conducted employing the factor structure for other data samples on the data under consideration (e.g., the Japan factor structure on the Peoria data.) The data from phases 2-6 were examined in this manner.

## RESULTS

### Factor Analyses

Factor analysis of the data from phase 1 of the investigation (Bloomington-Normal) indicated a four-factor solution which accounted for 70 per cent of the total variance of the satisfactory scales. These four factors were labeled "competence," "extroversion," "sociability," and "composure." Table 1 reports the factor loadings for the pre-ominant items for each factor.

The results of the analysis for phase 2 of the investigation (Peoria) indicate the presence of five factors in each sub-set of the data. These 5 factors were labeled "competence," "extroversion," "sociability," "composure," and "character." These factors accounted for 72 per cent of the total variance of the satisfactory scales in one sub-sample and 69 per cent of the total variance in the other sub-sample. As is noted in Table 2, almost perfect replication between the two sub-samples was obtained.

Phase 3 (Illinois State) analyses indicated four factors for both male and female subjects. These four factors were labeled "competence," "composure," "extroversion," and "character." These factors accounted for 64 per cent of the total variance of the satisfactory scales for male subjects and 63 per cent of total variance for female subjects. Again, as was found in phase 2, almost perfect replication was obtained between the two sub-sets of the sample. Sex did not have an observable impact of the factor structures.

The analyses of the phase 4 (Southern California) data indicated the presence of only three credibility dimensions. The three factors obtained were labeled "General Evaluation," "Extroversion," and "Composure." These factors accounted for 63 per cent of the total variance of the satisfactory scales. (See Table 4).

The data for phase 5 (Hampton Institute) indicated the presence of five credibility dimensions. The five factors were labeled "General Evaluation," "Extroversion," "Composure," "Dynamism," and "Sociability." These factors accounted for 67 per cent of the total variance of the satisfactory scales. (See Table 5).

The final factor analysis, that for phase 6 (Japan), resulted in a four-factor solution which accounted for 64 per cent of the total variance of the satisfactory scales. (See Table 6). The four factors were labeled "Character-Sociability," "Composure," "Competence," and "Extroversion."

Taken as a group the results of the factor analyses suggest the presence of different factor structures for the populations in the samples employed in this study. However, it would appear that approximately five essentially similar dimensions of response are associated with the source credibility of public figures across several populations. The "Competence" dimension is similar to factors found in a number of previous studies. This dimension has to do with the expertness or qualifications of the individual. The "Character" dimension obtained in these analyses is similar to the "Character" and "Trustworthiness" dimensions observed in previous research. This dimension appears to relate to the honesty and essential goodness of the public figure. The "Sociability" dimension, which was observed as an individual factor in three phases of the study, should be considered a "new dimension." It is principally composed of scales relating to the personality of the public figure. When this dimension did not appear as a separate factor, these items tended to combine with either "Character" or "General Evaluation." The fourth consistent factor observed in this investigation was "Composure." This factor appeared in all six phases of the study. The scales representing this dimension appeared to tap a response to a public figure's exhibited anxiety level. The final factor observed was "Extroversion," which appeared in all six phases of the investigation. This factor seems to represent the aggressiveness or talkativeness of the public figure.

In two of the analyses "Competence" and "Character" combined to form a "General Evaluation" factor. In the Hampton Institute sample "Extroversion" divided into two factors which were labeled "Extroversion" and "Dynamism." The reasons for these differences in factor structure are not clear. However, the comparatively small samples in phases 4, 5, and 6 may be important. There was considerably more consistency among the results from the samples in the first three phases of the study. In each of these samples, the sample size was substantially larger.

### Regression Analyses

The regression analyses provided data with regard to three important questions. The first of these was "Can the dimensions of credibility predict substantial variance in potential communication-related behavior?" The second question was "Do differences in factor structure among six populations affect the ability of source credibility dimensions to predict communication-related behavior?" The final question was "What is the comparative importance of observed credibility dimensions in the prediction of potential communication-related behavior?"

Table 7 reports the multiple correlations obtained for the regression analyses that were based on the individual samples own factor structures. As is indicated in Table 7, it was possible to predict substantial variance on the nine criterion variables on the basis of the scores on the credibility dimensions. For most of the samples on most of the criterion variables the obtained multiple correlations ranged from .5 to .7. The main exception was observed with the Japan sample, where substantially less variance was predictable. This is suggestive of a cultural difference between Japan and the U.S. The other exception related to the ability of source credibility to predict the fourth criterion variable for all samples. This criterion variable was concerned with the subjects' behavior in seeking communication with the public

figure. A comparatively small portion of the variance in this behavior was found to be predictable. A possible reason for this relatively poor predictability is that most of the subjects in all of the samples would never have direct interpersonal communication with any of the public figures studied. Rather, the subjects would probably only be receivers of mediated communication from these sources. Consequently, responses to this criterion variable may have had substantially higher error variance associated with them than responses to the other criterion variables.

The answer to our first question, therefore, is a qualified "yes." Dimensions of credibility can predict substantial variance in potential communication-related behavior.

Tables 8 - 12 report the multiple correlations obtained from both the primary and supplementary regression analyses. The primary analyses employed the factor structure for the predictor variables that was generated by the same subjects who provided the responses representing the criterion variables. The supplementary analyses used factor structures based on the other data samples. These results give some indication of the relative importance of using a population's own factor structure for the prediction of their communication-related behavior as opposed to using a factor structure generated for another population. An examination of the results reported in Tables 8 - 12 strongly suggests that the source of the factor structure is relatively unimportant. Roughly equivalent multiple correlations were obtained on all of the criterion variables regardless of which factor structure served as the basis of the predictor variable. The only exception to this was the comparatively lower multiple correlations generated when the Southern California factor structure was used to predict the criterion variable data supplied by the Peoria and Illinois State samples. The reason for this deviation is unclear.

The answer to our second question, therefore, appears to be "no." Differences in factor structure among the six populations investigated in this study did not substantially affect the ability of credibility dimensions to predict communication-related behavior.

The third important question to which the regression analyses were directed was concerned with the comparative importance of obtained credibility dimensions in the prediction of potential communication-related behavior. Tables 13 - 21 report the regression equations obtained for the criterion variables for each sample. An examination of these equations indicates that all of the dimensions of credibility obtained in this study contributed, under certain conditions, to the prediction of potential communication-related behavior. However, the two dimensions which regularly accounted for the most variance were "Competence" and "Character." In several instances, these were the only two credibility dimensions indicating significant predictive power.

### Conclusions:

The current investigation was designed to test the generalizability of source credibility factors and scales for public figures across diverse subject populations. In addition, the study was designed to generate information concerning the importance of any observed lack of generalizability.

The results of this investigation suggest that researchers should not expect exactly the same dimensionality of source credibility for all subject populations.

Substantial differences in factor structure were observed. Not only were different numbers of dimensions obtained from different populations, but even when the same dimension appeared for more than one subject population the scales representing that dimension were not always identical. On the surface these results suggest a severe problem for the development of measures of source credibility of public figures that can be used across a variety of subject populations. However, further examination of the data suggests that such a conclusion is probably unwarranted. The results of the regression analyses indicated that the observed variability in factor structure does not seriously affect the ability of those factor structures to predict the same potential communication-related behavior. Consequently, the scales reported in Table 22 are suggested for use across populations. These scales can be expected to tap all of the dimensions observed in the six phases of this study. While in some instances an investigator may obtain more information from these scales than he needs (the behavior which he may wish to predict may not be related to one or more dimensions being measured), the use of these scales ought to provide reasonable assurance that necessary information will be available.

It should be stressed that the scales recommended in Table 22 are recommended only for the measurement of the credibility of public figures. Their use for other types of sources may be totally inappropriate. It should also be stressed that as extensive as the current investigation was, these results should not be considered representative of all potential subject populations. While there may be comparatively less need for replication research with general American populations, there is clearly a need for research with other sub-cultural populations within the United States and cultures represented in other nations. In addition, there is need for research which employs these or similar credibility scales and obtains more direct measures of actual (rather than potential) communication-related behavior. This and previous research strongly suggests that source credibility plays a major role in communication behavior. The need now is for research that can specify quantitatively the degree of that relationship.

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TABLE 1

## Rotated Factor Loadings for Bloomington-Normal Sample

Scale	Factor				
	Competence	Extroversion	Sociability	Composure	
Talkative-Silent	-.17	.74	.13	-.06	
Attractive-Repulsive	.36	.10	.73	.05	
Good natured-Irritable	.23	.01	.82	.07	
Unqualified-Qualified	-.91	.00	-.12	-.13	
Inexpert-Expert	-.84	-.09	-.17	-.15	
Valuable-Worthless	.81	.14	.37	.08	
Gloomy-Cheerful	-.17	-.07	-.77	-.16	
Unfriendly-Friendly	-.36	-.16	-.63	-.11	
Composed-Excitable	.23	.01	.13	.90	
Calm-Anxious	.26	.01	.31	.62	
Headstrong-Mild	-.15	.76	-.19	-.06	
Active-Passive	.23	.70	.24	.00	
Meek-Aggressive	-.25	-.71	-.11	.13	
Incompetent-Competent	-.83	-.16	-.24	-.17	
Undependable-Responsible	-.87	-.08	-.19	-.13	
Bold-Timid	.18	.72	.03	.21	
Extroverted-Introverted	.12	.71	.17	.09	
Inexperienced-Experienced	-.76	-.33	-.02	-.05	
					Total
Eigenvalue	4.89	3.35	2.73	1.70	12.67
Percent of Variance	27	19	15	09	70

# TABLE 2

## Rotated Factor Loadings for Subsets of Peoria Sample

Scale Subset	Character		Extroversion		Composure		Competence		Sociability	
	A	B	A	B	A	B	A	B	A	B
Sociable-Unsociable	30	17	27	27	-13	-13	-12	-22	-74	-76
Nervous-Poised	-12	-22	-05	-10	04	77	18	35	12	08
Cheerful-Gloomy	25	39	17	18	-11	-14	-13	-11	-84	-71
Tense-Relaxed	-27	-19	-06	-06	33	88	05	12	06	16
Dishonest-Honest	-82	-79	07	-09	14	22	19	22	06	-10
Selfish-Unselfish	-77	-70	93	00	20	15	11	26	03	-03
Inexperienced-Experienced	-31	-32	-15	-10	16	17	76	75	05	14
Verbal-Quiet	-02	04	79	77	-12	07	-16	-11	03	-09
Untrained-Trained	-25	-23	-13	-03	06	12	83	81	14	13
Awful-Nice	-79	-67	-03	08	13	12	28	34	23	30
Extroverted-Introverted	12	-02	72	75	-11	-19	-04	-09	-06	00
Just-Unjust	87	75	12	-02	-10	-10	-12	-08	-14	-36
Good-Bad	87	82	12	05	-04	-01	-18	-08	-19	-21
Uninformed-Informed	-33	-22	-17	-06	09	16	68	77	09	08
Cruel-Kind	-78	-74	02	06	12	14	30	31	20	11
Talkative-Silent	-06	-07	77	82	10	-06	-11	-03	-15	-11
Adventurous-Cautious	09	06	72	64	00	00	-09	06	-25	-13
Reliable-Unreliable	80	82	15	10	-07	-05	-20	-15	-14	-17
Eigenvalue	5.18	4.52	2.49	2.40	1.60	1.63	2.15	2.40	1.57	1.51
Percent of Variance	29	25	14	13	09	09	12	13	09	08

Totals: Eigenvalue      Subset A = 12.99      Subset B = 12.46

Percent of Variance      Subset A = 72      Subset B = 69

TABLE 3

Rotated Factor Loadings for Male and Female Subjects  
in Illinois State University Sample

Scale	Sample Sex	Factor							
		Character		Extroversion		Composure		Competence	
		M	F	M	F	M	F	M	F
intelligent-unintelligent		-39	-35	12	12	-11	-13	73	60
nervous-poised		26	19	-22	-35	78	63	-11	-17
tense-relaxed		18	12	-16	-39	89	65	-11	00
believable-unbelievable		-75	-80	02	-02	-17	-07	22	09
good natured-irritable		-60	-68	14	14	-22	-21	39	00
cooperative-negativistic		-65	-76	-03	02	-20	-19	39	11
meek-aggressive		14	-14	-68	-71	-04	12	-01	-22
valuable-worthless		-77	-83	08	06	-04	-11	32	20
verbal-quiet		03	13	77	79	-19	-12	10	00
headstrong-mild		02	02	66	71	-16	10	-19	-10
untrained-trained		36	31	-25	-22	04	20	-72	-72
admirable-contemptable		-75	-83	16	05	-17	-16	29	10
awful-nice		76	62	-04	08	21	16	-16	-26
just-unjust		-72	-80	07	11	-16	-07	27	11
energetic-tired		-26	-36	61	62	-08	-23	27	12
good-bad		-77	-83	02	11	-10	-10	32	10
uninformed-informed		36	21	-33	-18	03	05	-69	-81
talkative-silent		00	-12	79	77	-02	05	17	06
impressive-unimpressive		-68	-76	19	16	-16	-22	31	18
reliable-unreliable		-77	-84	-01	07	-13	-13	22	13
Eigenvalue		5.84	6.55	2.84	3.07	1.60	1.20	2.58	1.85
Variance		29	33	14	15	08	06	13	09

Totals Eigenvalue Males = 12.86 Females = 12.67  
Percent of Variance Males = 64 Females = 63

TABLE 4

Rotated Factor Loadings For University of Southern California Sample

Scale	Factor			Total
	General Evaluation	Extroversion	Composure	
nervous-poised	-28	-05	-06	
tense-relaxed	-34	-01	-62	
sinful-virtuous	-70	14	-06	
believable-unbelievable	71	08	09	
intellectual-narrow	80	-11	24	
cooperative-uncooperative	79	-14	11	
outgoing-withdrawn	07	69	15	
dishonest-honest	-87	-04	-03	
meek-aggressive	08	-66	-12	
valuable-worthless	87	-01	17	
calm-anxious	22	-03	70	
verbal-quiet	-03	67	01	
logical-illogical	88	-06	16	
undependable-responsible	-76	-22	-08	
admirable-contemptable	81	-05	17	
awful-nice	-81	06	-11	
qualified-unqualified	82	00	09	
extroverted-introverted	03	75	11	
just-unjust	84	-02	07	
unpleasant-pleasant	-76	01	-11	
timid-bold	03	-75	04	
energetic-tired	28	71	-03	
good-bad	87	01	11	
composed-excitable	09	-09	79	
incompetent-competent	-81	-03	-01	
cruel-kind	-76	08	-03	
talkative-silent	-14	71	00	
expert-inexpert	75	16	18	
impressive-unimpressive	84	15	10	
reliable-unreliable	78	10	04	
				Total
Eigenvalue	12.82	3.69	2.25	18.76
Percent of Variance	43	12	08	63

TABLE 5

Rot Factor Loadings for Hampton Institute Sample

Scale	Factor				
	General Evaluation	Extroversion	Composure	Dynamism	Sociability
intelligent-unintelligent	65	07	39	-03	-28
sociable-unsociable	39	02	30	02	-63
nervous-poised	-15	-33	-72	-10	12
tense-relaxed	-26	-01	-70	-12	14
believable-unbelievable	81	00	09	25	-17
intellectual-narrow	74	05	23	-01	-34
outgoing-withdrawn	05	39	08	16	-64
dishonest-honest	-73	00	05	-27	05
valuable-worthless	78	09	14	25	-27
selfish-unselfish	-75	00	-17	-02	14
calm-anxious	16	-12	66	-12	-17
inexperienced-experienced	-75	-20	-26	08	10
verbal-quiet	-03	79	-10	00	-07
logical-illogical	67	14	09	19	-37
undependable-responsible	-75	-12	-23	-15	11
untrained-trained	-67	-12	-08	-20	10
unsympathetic-sympathetic	-74	18	04	-03	37
admirable-contemptable	83	-14	12	07	-20
awful-nice	-75	26	-09	-20	07
qualified-unqualified	84	10	25	04	-05
just-unjust	86	-11	02	07	-29
timid-bold	04	-07	-11	-77	05
good-bad	33	-10	-01	20	-19
repulsive-attractive	-78	06	-10	16	36
incompetent-competent	-73	01	-16	-21	17
cruel-kind	-72	14	01	-34	28
talkative-silent	-06	78	-10	03	09
expert-inexpert	73	-03	22	37	07
passive-active	-13	-06	29	-69	05
impassive-unimpressive	80	06	30	09	-13
adventurous-cautious	19	-07	19	62	-05
crude-refined	-71	13	-04	-11	26
reliable-unreliable	80	-05	17	-20	-26

Eigenvalue	13.59	1.82	2.38	2.30	2.08
Percent of Variance	42	06	07	07	07

Totals:  
 Eigenvalue 22.17  
 Percent of Variance 67

TABLE 6

## Rotated Factor Loadings for Japanese Sample

Scale	Character/Sociability	Factor Composure	Competence	Extroversion
intelligent-unintelligent	11	25	63	07
nervous-poised	-04	67	00	11
tense-relaxed	06	83	17	02
sinful-virtuous	-61	-09	-28	15
believable-unbelievable	71	06	17	24
good-natured-irritable	88	06	09	25
intellectual-narrow	07	-05	82	20
dishonest-honest	-82	12	07	-08
valuable-worthless	75	20	15	31
undependable-responsible	-63	16	12	-29
confident-lacks confidence	21	-61	-04	20
unsympathetic-sympathetic	-61	-30	-28	-39
admirable-contemptible	81	10	27	14
awful-nice	-74	14	-15	-19
extroverted-introverted	06	-33	-19	70
just-unjust	85	03	04	15
unpleasant-pleasant	-89	-06	-03	-16
energetic-tired	30	-09	11	76
good-bad	71	09	37	18
repulsive-attractive	-73	30	-09	05
incompetent-competent	38	22	-67	-02
cruel-kind	-86	01	-02	02
talkative-silent	17	05	-06	73
expert-inexpert	01	-12	64	12
passive-active	-38	17	03	-71
adventurous-cautious	15	19	21	64
reliable-unreliable	69	21	-06	17
Eigenvalue	9.13	2.18	2.61	3.28
Percent of Variance	34	08	10	12
Totals:				
Eigenvalue	17.20			
Percent of Variance	64			

TABLE 7

## Multiple Correlations of Credibility Dimensions with Criterion Variables

Data Sample	Criterion Variable								
	1	2	3	4	5	6	7	8	9
Bloomington-normal	56	56	54	24	--	--	--	--	--
Peoria	67	67	61	40	52	51	46	69	61
ISU	62	59	59	40	54	48	53	69	57
USC	72	66	70	16	64	60	55	74	50
Hampton	70	68	61	45	65	61	54	73	66
Japan	42	33	45	22	39	31	47	46	41

TABLE 8

## Multiple Correlations of Correct and Incorrect Factor Structures with Criterion Variables for the Peoria Sample

Source of Factor Structure	Criterion Variable								
	1	2	3	4	5	6	7	8	9
Peoria	67	67	61	40	52	51	46	69	61
ISU	68	67	63	40	53	52	47	73	64
USC	50	49	51	25	37	32	32	52	48
Hampton	71	67	65	41	52	52	47	71	63
Japan	68	67	62	40	52	52	47	71	62

TABLE 9

Multiple Correlations of Correct and Incorrect Factors Structures  
with Criterion Variables For the Illinois State Sample

Source of Factor Structure	Criterion Variables								
	1	2	3	4	5	6	7	8	9
ISU	62	59	59	40	54	48	53	69	57
Peoria	58	56	56	38	50	46	50	65	52
USC	46	43	48	30	39	35	39	52	45
Hampton	63	59	60	38	54	48	52	67	56
Japan	62	58	61	38	54	49	53	68	55

TABLE 10

Multiple Correlations of Correct and Incorrect Factor Structures  
with Criterion Variables for the Southern California Sample

Source of Factor Structure	Criterion Variables								
	1	2	3	4	5	6	7	8	9
USC	72	66	70	16	64	60	55	74	50
Peoria	71	65	71	22	67	60	53	72	52
ISU	69	66	63	22	67	61	56	74	47
Hampton	72	66	73	20	63	59	57	75	50
Japan	72	67	69	15	65	59	55	74	49

TABLE 11

Multiple Correlation of Correct and Incorrect Factor Structures  
with Criterion Variables for the Hampton Institute Sample

Source of Factor Structure	Criterion Variable								
	1	2	3	4	5	6	7	8	9
Hampton	70	68	61	45	65	61	54	73	66
Peoria	64	66	55	43	63	60	52	69	64
ISU	65	68	58	45	65	61	49	72	66
USC	67	67	59	42	63	59	51	72	65
Japan	68	68	60	44	64	59	54	71	65

TABLE 12

Multiple Correlations of Correct and Incorrect Factor Structures  
with Criterion Variables for the Japanese Sample

Source of Factor Structure	Criterion Variables								
	1	2	3	4	5	6	7	8	9
Japan	42	33	45	22	39	31	47	46	41
Peoria	47	48	55	53	39	34	49	42	49
ISU	38	29	50	29	35	24	45	40	42
USC	41	34	47	47	39	24	40	45	45
Hampton	49	40	40	51	45	35	52	48	51

TABLE 13

Regression Equations for Criterion Variable 1:  
 "When I need information on an issue, I consider  
 this person as a source of information, to be"

Sample	Equation
Bloomington-Normal	$Y = 1.30 + 1.44 \text{ (Competence)}$
Peoria	$Y = .10 + 1.18 \text{ (Character)} - .24 \text{ (Extroversion)}$ $+ .38 \text{ (Competence)}$
ISU	$Y = .06 + .25 \text{ (Competence)} - .19 \text{ (Composure)}$ $+ 1.29 \text{ (Character)}$
USC	$Y = -.79 + 1.57 \text{ (General Evaluation)}$
Hampton	$Y = -2.78 + 1.76 \text{ (General Evaluation)}$ $+ .38 \text{ (Extroversion)} - .30 \text{ (Sociability)}$
Japan	$Y = 3.05 + .54 \text{ (Character/Sociability)}$ $+ .36 \text{ (Competence)}$

TABLE 14

Regression Equations for Criterion Variable 2:  
 "When I am faced with making a decision, I  
 consider this person's opinions to be"

Sample	Equation
Bloomington-Normal	$Y = 4.64 + 1.38 \text{ (Competence)} + .47 \text{ (Sociability)}$ $+ .41 \text{ (Composure)}$
Peoria	$Y = -0.73 + 1.27 \text{ (Character)} + .15 \text{ (Competence)}$
ISU	$Y = .17 - .24 \text{ (Competence)} + 1.46 \text{ (Character)}$
USC	$Y = 0.37 + 1.48 \text{ (General Evaluation)}$ $- .29 \text{ (Composure)}$
Hampton	$Y = -2.74 + 1.50 \text{ (General Evaluation)}$ $+ .22 \text{ (Dynamism)}$
Japan	$Y = 5.47 + .52 \text{ (Character/Sociability)}$ $- .18 \text{ (Composure)}$

TABLE 15

Regression Equations for Criterion Variable 3:  
 "As a communicator, I consider this person to  
 be"

Sample	Equation
Bloomington-Normal	$Y = -1.60 + 1.27 (\text{Competence}) + .39 (\text{Sociability})$
Peoria	$Y = .05 + 1.09 (\text{Character}) + .28 (\text{Competence})$
ISU	$Y = -1.23 + .32 (\text{Competence}) + .27 (\text{Extroversion}) + 1.07 (\text{Character})$
USC	$Y = -2.83 + 1.20 (\text{General Evaluation}) + .55 (\text{Extroversion}) + .22 (\text{Composure})$
Hampton	$Y = .97 + 1.32 (\text{General Evaluation})$
Japan	$Y = .67 + .23 (\text{Character/Sociability}) + .42 (\text{Competence}) + .61 (\text{Extroversion})$

TABLE 16

Regression Equations for Criterion Variable 4:  
 "I seek opportunities to communicate with  
 this person"

Sample	Equation
Bloomington-Normal	$Y = -1.87 + .63 (\text{Competence}) + .68 (\text{Sociability})$
Peoria	$Y = 2.10 + .88 (\text{Character}) - .29 (\text{Extroversion})$
ISU	$Y = -.38 + .45 (\text{Competence}) - .22 (\text{Composure}) + .70 (\text{Character})$
USC	$Y = 2.93 + .25 (\text{General Evaluation}) - .35 (\text{Composure})$
Hampton	$Y = -2.6 + .66 (\text{General Evaluation}) + .20 (\text{Composure}) + .38 (\text{Dynamism})$
Japan	$Y = 6.10 + .45 (\text{Character/Sociability}) - .18 (\text{Competence}) - .31 (\text{Extroversion})$

TABLE 17

Regression Equations for Criterion Variable 5:  
 "If this person asked you to change your opinion  
 on something, how likely would you be to do so?"

Sample	Equation
Peoria	$Y = .80 + 1.06 (\text{Character}) - .21 (\text{Extroversion})$
ISU	$Y = -.31 - .18 (\text{Competence}) + 1.25 (\text{Character})$
USC	$Y = 1.10 + 1.41 (\text{General Evaluation})$ $+ .29 (\text{Extroversion}) - .57 (\text{Composure})$
Hampton	$Y = -2.96 + 1.06 (\text{General Evaluation})$ $+ .39 (\text{Dynamism})$
Japan	$Y = .51 + .61 (\text{Character/Sociability})$ $+ .24 (\text{Composure}) + .23 (\text{Competence})$

TABLE 18

Regression Equations for Criterion Variable 6:  
 "If this person asked you to do something you  
 had not done before, how likely would you be  
 to do so?"

Sample	Equation
Peoria	$Y = .81 + 1.06 (\text{Character}) - .23 (\text{Extroversion})$
ISU	$Y = .13 - .22 (\text{Competence}) + 1.12 (\text{Character})$
USC	$Y = -.02 + 1.28 (\text{General Evaluation})$ $- .33 (\text{Composure})$
Hampton	$Y = -2.58 + .96 (\text{General Evaluation})$ $+ .38 (\text{Dynamism})$
Japan	$Y = 2.04 - .26 (\text{Composure}) + .60 (\text{Competence})$ $+ .20 (\text{Extroversion})$

TABLE 19

Regression Equations for Criterion Variable 7:  
 "If this person said something was false that  
 you believed was true, how likely would you be  
 to change your mind?"

Sample	Equation
Peoria	$Y = -0.38 + .94 (\text{Character})$
ISU	$Y = -.31 -.26 (\text{Competence}) + 1.24 (\text{Character})$
USC	$Y = -.66 + 1.05 (\text{General Evaluation})$
Hampton	$Y = -1.55 + 1.02 (\text{General Evaluation})$ $-.27 (\text{Sociability}) + .45 (\text{Dynamism})$
Japan	$Y = 4.69 + .75 (\text{Character/sociability})$ $-.75 (\text{Composure}) + .19 (\text{Competence})$

TABLE 20

Regression Equations for Criterion Variable 8:  
 "How well do I like this person?"

Sample	Equation
Peoria	$Y = -1.51 + 1.48 (\text{Character})$
ISU	$Y = -.63 -.21 (\text{Competence}) + 1.53 (\text{Character})$
USC	$Y = -1.01 + 1.53 (\text{General Evaluation})$ $-.25 (\text{Composure})$
Hampton	$Y = -4.35 + 1.33 (\text{General Evaluation})$ $+ .30 (\text{Extroversion}) + .34 (\text{Dynamism})$
Japan	$Y = 1.92 + .39 (\text{Character/Sociability})$

TABLE 21

Regression Equations for Criterion Variable 9:  
"How well would you like to work with this person?"

Sample	Equation
Peoria	$Y = 2.07 + 1.36 (\text{Character}) + .19 (\text{Composure})$
ISU	$Y = -.65 -.23 (\text{Composure}) + 1.56 (\text{Character})$
USC	$Y = -.79 + 1.24 (\text{General Evaluation})$ $+ .31 (\text{Extroversion}) -.32 (\text{Composure})$
Hampton	$Y = -4.15 + 1.50 (\text{General Evaluation})$ $+ .37 (\text{Extroversion})$
Japan	$Y = .43 + .73 (\text{Character/Sociability})$ $+ .38 (\text{Competence})$

TABLE 22

## Suggested Scales For the Measurement of the Source Credibility of Public Figures

Dimension	Scales
Competence	expert-inexpert competent-incompetent responsible-undependable qualified-unqualified experienced-inexperienced trained-untrained intelligent-unintelligent intellectual-narrow
Character	honest-dishonest nice-awful just-unjust good-bad kind-cruel reliable-unreliable believable-unbelievable admirable-contemptible
Composure	calm-anxious poised-nervous relaxed-tense
Extroversion	talkative-silent extroverted-introverted verbal-quiet aggressive-meek bold-timid adventurous-cautious energetic-tired
Sociability	attractive-unattractive good natured-irritable cheerful-gloomy sociable-unsociable

## APPENDIX A

### Semantic Differential Scales

Intelligent-Unintelligent	Untrained-Trained
Sociable-Unsociable	Unsympathetic-Sympathetic
Nervous-Poised	Admirable-Contemptable
Cheerful-Gloomy	Awful-Fine
Tense-Relaxed	Qualified-Unqualified
Sinful-Virtuous	Extroverted-Introverted
Believable-Unbelievable	Just-Unjust
Good-natured-Irritable	Unpleasant-Pleasant
Intellectual-Narrow	Timid-Bold
Cooperative-Negativistic	Energetic-Tired
Outgoing-Withdrawn	Good-Bad
Dishonest-Honest	Repulsive-Attractive
Weak-Aggressive	Uninformed-Informed
Valuable-Worthless	Composed-Excitable
Selfish-Unselfish	Incompetent-Competent
Calm-Anxious	Cruel-Kind
Inexperienced-Experienced	Talkative-Silent
Verbal-Quiet	Expert-Inexpert
Logical-Illogical	Passive-Active
Un dependable-Responsible	Impressive-Unimpressive
Headstrong-Mild	Adventurous-Cautious
Friendly-Unfriendly	Crude-Refined
Confident-Lacks confidence	Reliable-Unreliable

### Potential Communication-Related Behavior Scales

1. When I need information on an issue, I consider this person as a source of information, to be:  
Worthless - Extremely Valuable
2. When I am faced with making a decision, I consider this person's opinions to be:  
Worthless - Extremely Valuable
3. As a communicator, I consider this person to be:  
Inferior - Superior
4. I seek opportunities to communicate with this person  
Not at all - Very often
5. If this person asked you to change your opinion on something, how likely would you be to do so? Very Unlikely - Very Likely
6. If this person asked you to do something you had not done before, how likely would you be to do so? Very Unlikely - Very Likely
7. If this person said something was false that you believed was true, how likely would you be to change your mind?  
Very Unlikely - Very Likely
8. How well do you like this person? Very Little - Very much
9. How well would you like to work with this person?  
Very Little - Very much